

Order 2004-7-11  
Served: July 15, 2004

UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C.



Issued by the Department of Transportation  
on the 15<sup>th</sup> day of July, 2004

**INTRA ALASKA BUSH SERVICE MAIL RATES**

**Docket OST-2003-14694**

**ORDER SETTING FINAL RATE UNTIL FURTHER DEPARTMENT  
ACTION AND REQUESTING COMMENTS**

**Summary**

By this order, the Department is setting the terminal portion of the mail rates payable by the United States Postal Service to intra-Alaska bush mail carriers providing service with bush aircraft. This rate will be effective immediately on a final basis, not subject to retroactive adjustment, and will remain in effect until further Department action.<sup>1</sup> The current linehaul elements of intra-Alaska bush<sup>2</sup> mail rates -- Part 121,<sup>3</sup> Part 135, and Amphibious -- remain unchanged.<sup>4</sup> The terminal rate we are setting here of \$516.18 per mail ton enplaned is significantly less than the prior rate of \$722.80 set by Order 2002-8-7.

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<sup>1</sup> The Postal Service compensates carriers on a weekly basis and implements any rate changes on Saturdays, the beginning of its pay week. Thus, the rate we are setting here will be effective on the first Saturday after the date of service of this order.

<sup>2</sup> Aircraft having payloads exceeding 7,500 pounds are classified as mainline, while bush aircraft have payloads of 7,500 pounds or less, regardless of the number of seats. As a point of reference, the Saab 340, the largest bush aircraft currently operating with just under 7,500 pounds payload, can be configured with up to 34 seats.

<sup>3</sup> There are two Part 121 rates: one for faster aircraft not capable of landing at short runways, and one for short take-off and landing aircraft, capable of landing at short runways.

<sup>4</sup> See Orders 2004-3-34, 2004-6-3, and 2004-6-4.

## **Background**

In the first phase of the last bush mail investigation, Order 88-4-27 determined the terminal portion of the mail rate by first assigning expenses directly attributable to the transportation of mail, specifically village agents<sup>5</sup>, then dividing the remaining expenses by enplaned tons of all traffic -- passengers, freight and mail -- with no differentiation among the three classes of traffic. At the time, expenses for village mail agents had not been recurrently reported<sup>6</sup> and so the Postal Service argued that such directly assigned expenses were unreliable. In addition, the wide variation in the agents' costs for different carriers and its own experience in Alaska led the Postal Service to believe that village agents performed a variety of mail and non-mail related functions.

Subsequently, Order 89-7-51 introduced the concept of multivariable regression -- a very different way of determining terminal costs from the prior order. That order tentatively found that such techniques were preferable to the costing techniques used in Order 88-4-27, as follows:

Multivariable regression analysis is a widely used statistical tool to discern the disparate impacts of two or more factors [such as mail and non-mail traffic] acting independently on a dependent variable. The equation we have chosen to rely on expresses departure-related station costs reported by the carriers as a function of two independent variables -- passenger/baggage/freight tons enplaned weighted at 200 lbs. per passenger, and mail tons enplaned. The regression postulates that the more passengers/baggage/freight and the more mail are boarded, the greater the carrier's station cost. Not surprisingly, the regression indicates, with a strong degree of confidence, that this is the case. The regression also indicates that it costs 57% more to enplane a ton of mail than had previously been indicated in Order 88-4-27. We do not find this regression result unreasonable. First, passengers load themselves, while the methodology previously employed assigned a great deal of passenger-related station cost to the bush destinations where there are few costs other than bush agents, whose primary responsibility is to load mail and freight. (Page 5.)

Order 89-7-51 went on to note that:

Allocating bush terminal costs between mail and other traffic is more difficult for bush than for mainline service, because the accounting detail is not available for the bush points. Nevertheless whenever detailed data has been available, the cost of loading mail and freight has been determined to be much greater than the cost of loading passengers. (Page 5.)

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<sup>5</sup> Village agents are employees of the carriers, rather than the Postal Service. They are employed at the outlying communities, not the regional hubs. It was a matter of dispute whether these agents delivered only mail from the aircraft to the customer, in which case all of their costs should be directly assigned to mail, or whether they provided additional services to the carriers.

<sup>6</sup> In the previous investigation, the Department required one-time, special reports from the carriers such as balance sheets and data on village mail agents. In this investigation we have not required any such one-time special reports. Reports submitted on a regular, recurrent basis, and not tailored to a specific result are generally more reliable.

It further noted, in footnote eight, that while more detailed reporting such as that required of the major carriers might be of some assistance, small operators, such as the bush carriers operating to markets of limited size, cannot specialize to the same degree as mainline carriers, and therefore greater accounting detail would not necessarily resolve difficulties in allocating common costs.

Since the conclusion of the last base-rate investigation, we have periodically updated the regression-determined terminal rate by indexing it to changes in terminal unit costs per weighted departure, which produced the increase in unit costs from \$426.43 per ton in Appendix K of Order 90-10-34, to the most recent rate of \$722.80 in Order 2002-8-7.

### **Decision**

We continue to endorse the multivariable regression approach for determining mail's terminal rate. As shown in Appendix A, the regression estimates a cost for each 200 pounds of mail<sup>7</sup> of \$38.1647, or \$381.165 per ton enplaned. Because we excluded the data for 40-Mile and LAB as unreliable in Order 2004-6-4, we have also excluded their data here. We have also excluded Tatonduk from the calculations of the terminal rate because its reports do not breakout terminal costs.<sup>8</sup> Consistent with the statute and the calculation of the linehaul in Order 2004-6-4, we have excluded from the regression the data for four all-cargo carriers -- ATS, Bellair, Village, and Olson.<sup>9</sup> We have adjusted the data for ERA to reflect its bush operations.<sup>10</sup> A multi-variable regression examines the impact on costs of carriers with different mixes of the two independent variables, in this instance mail and all other traffic. We find there is no basis for determining a separate terminal rate for Part 121, Short Runway, Part 135, and Amphibious operations. As indicated, only one expense element is reported for each carrier for the terminal element. Of the three carriers with Part 121 operations, only Era Aviation operates purely as a Part 121 carrier, while Peninsula's operations include Part 121, Part 135, and Amphibious and Frontier operates under both Part 135 and Part 121.

To the regression result of \$381.65 per ton found in Appendix A must be added markups for both capacity-related expense and for after-tax return, because those costs were not included in the regression.<sup>11</sup> The average capacity-related expense for all carriers was 13.79 percent, and we have increased the \$381.65 result accordingly. As discussed in earlier orders, we have not required carriers to report balance sheet information as we did in the earlier investigation.

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<sup>7</sup> Passengers, in order to be compared to mail or freight, have to be put on a passenger equivalent basis (PEQ) of 200 pounds per passenger.

<sup>8</sup> Tatonduk is a large regional carrier, and, as such, reports differently than the other carriers.

<sup>9</sup> As discussed in footnote 3 of Order 2004-6-4, the law provides that the mail rates for bush carriers be based on data for bush passenger carriers.

<sup>10</sup> ERA operates service with four different aircraft types, only one of which, the DeHavilland Twin Otter, qualifies as bush. While ERA reports bush and mainline traffic by aircraft type, its expense report combines bush and mainline station expense in one number. We have assigned 26.48% of ERA's station expense to its bush operations, as shown on page 2 of Appendix A, on the basis of scheduled RTMs of passengers, freight, and mail.

<sup>11</sup> Consistent with all of the linehaul rate orders, and fully discussed in Order 2004-6-4, the terminal rate must be increased to reflect capacity-related expense (overhead) and a profit element. We have rejected the Postal Service's argument that after tax profit not be applied to capacity related expense. Likewise, we rejected their argument that a fixed 5 percent markup to expenses be applied.

Instead, we have decided to apply the implicit return and tax markup found in Order 90-10-34. For the linehaul, the return and tax markup was 9.46 percent; for the terminal, the corresponding number was 18.86 percent.<sup>12</sup> The terminal markup for return and tax is significantly higher than the linehaul, notwithstanding the same after tax rate of return on investment for the linehaul, because it was applied to the terminal element's proportionately larger investment base per unit of expense, as determined in Order 90-10-34. Finally, because mileage is not a factor in the terminal element, there is no need for a circuitry calculation for the terminal rate as there was for the linehaul.

The main changes from the prior regression equation are the change in the make up of the pool of carriers, and the passage of time. Six of the 18 carriers in the prior pool are no longer operating, including Friendship, by the far the biggest bush carrier at the time. Besides having a much larger pool of carriers than before, we have added some very large operators that were not operating then, including Grant, Hageland, and Promech. Also, the reliability of the results as measured by the T-Statistic and Adjusted R-square parameters are similar.<sup>13</sup>

As in the last investigation, we have forced the regression result to have a Y-Intercept of zero, meaning that there would be no terminal expense if there were no traffic carried, i.e., if the carriers were not operating. Rather than try to manually allocate such residual expenses between mail and non-mail traffic, we have let the regression itself handle this issue by forcing the Y-Intercept to zero.

Finally, although we have based the regression on expenses and traffic for the year ended June 30, 2003, we have not included an inflation update. This is consistent with our discussion in Order 2004-6-3, page 11.

RSIA provides that the Department will use show-cause procedures to conduct a base-rate investigation every two years. Under those circumstances, the burden of undergoing annual updates for inflation may exceed their benefit. Also, more than a year has passed since the midpoint of the current base period, January 1, 2003, which is the point at which an inflation update would be calculated. It would be difficult at this juncture, with annual data not becoming available until well after June 30, 2004, for us to calculate an inflation update. The difference between the Postal Service's recommendation of 5 percent plus interest, and the return element of 9.46 percent may be a close approximation of the inflation factor and should allow us to discontinue those updates.

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<sup>12</sup> See Appendix F of Order 90-10-34.

<sup>13</sup> In Appendix K to Order 90-10-34, the Adjusted R-Square was 0.7247 and the T-Statistic was 3.369. In Appendix A, the corresponding values are 0.8037 and 2.06.

**ACCORDINGLY,**

1. We make final the rate per mail ton enplaned of \$516.18 as discussed in the order, effective on the first Saturday following the service date of this order,<sup>14</sup> until further Department action;
2. Parties wishing to object to this order may file objections within 30 days of the service date of this order, with 15 days for rebuttal. Any objection should contain clear and specific objections as to how the rates were calculated, and state what methodology should be employed. The filing of objections will not stay the effectiveness of this order; and
3. We will serve this order on the parties to this proceeding.

By:

**KARAN K. BHATIA**  
Assistant Secretary for Aviation  
and International Affairs

(SEAL)

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<sup>14</sup> The Postal Service has indicated that the mail pay periods for carriers start on each Saturday, and so, for administrative efficiency, we will make this rate effective on the first Saturday after the service date of this order.

Y1 = X1 + X2 + E - EXCLUDE All-Cargo, As well As 40-Mile and LAB  
Dependent Variable: Y, Where Y is Departure Related Expense, YE 6/30/03  
NOTE: No intercept in model. R-Square is redefined.

Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
Model	2	6.656738E13	3.328369E13	52.19
Error	23	1.466756E13	6.3772E11	<.0001
Uncorrected Total	25	8.123494E13		

Root MSE	798574	R-Square	0.8194
Dependent Mean	1089810	Adj R-Sq	0.8037
Coeff Var	73.27639		

Parameter Estimates				
Variable	Label	Parameter Estimate	Standard Error	t Value
X1	X1	38.16472	18.49882	2.06
X2	X2	18.80526	4.05134	4.64
				Pr >  t
				0.0506
				0.0001

Output Statistics									
Obs	Carrier	Dep Var	Predicted Value	Std Error Mean Predict	Residual	Std Error Residual	Student Residual	-2-1 0 1 2	Cook's D
1	Smokey	22451	449113	62822	-426662	796099	-0.536	*	0.001
2	A. Seaplane	156025	126174	12525	29851	798476	0.0374		0.000
3	Arctic Circle	1278102	1230156	338253	47946	723398	0.0663		0.000
4	Baker	143336	279418	104678	-136082	791683	-0.172		0.000
5	Bering	1128169	2162799	221858	-1034630	767137	-1.349	**	0.076
6	C. Smythe	1832898	1454233	220808	378665	767440	0.493		0.010
7	ERA (Bush)	917859	2012798	382068	-1094939	701245	-1.561	***	0.362
8	Frontier	3181014	2581941	235826	599073	756487	0.792	*	0.036
9	Grant	1572142	2261066	259916	-688924	755092	-0.912	*	0.049
10	Hageland	2340477	3939445	385666	-1598968	699272	-2.287	***	0.795
11	Iliama	173244	427808	46278	-254564	797232	-0.319		0.000
12	Inland	324339	525315	124272	-200976	788845	-0.255		0.001
13	Island Air	420629	555922	72055	-135293	795316	-0.170		0.000
14	Larry's	736624	814440	269645	-77816	751673	-0.104		0.001
15	Peninsula	7046272	4273016	430799	2773256	672408	4.124	*****	3.491
16	Promech	1603707	1562406	239333	41301	761866	0.0542		0.000
17	Servant	292747	348073	159576	-55326	782468	-0.0707		0.000
18	Skagway	362984	298149	46448	64835	797222	0.0813		0.000
19	Spernak	132445	351827	73770	-219382	795159	-0.276		0.000
20	Tanana	438226	963946	368260	-525720	708594	-0.742	*	0.074
21	Taquan	207578	379192	42807	-171614	797426	-0.215		0.000
22	Warbelows	523803	994594	101276	-470791	792126	-0.594	*	0.003
23	Wings	938313	941879	110191	-3566	790935	-0.0045		0.000
24	Wright	398137	792770	87487	-394633	793767	-0.497		0.002
25	Yute	1073741	757442	285222	316299	745901	0.424		0.013

Sum of Squared Residuals -3238661  
Predicted Residual SS (PRESS) 1.466756E13  
2.55259E13

Passenger Equivalents, PEROs 1/		Per Schedule F-2				CR
Carrier	Mail	Psgs., Freight	DR	CR	Operating	
1 Alaska Seaplane 3/	870	4,945	\$156,025	\$64,636	\$899,798	Markup 1/ 107.74%
2 Arctic Circle	21,704	21,369	\$1,278,102	\$714,974	\$8,827,011	108.81%
3 Baker	6,079	2,521	\$143,336	\$184,358	\$1,284,592	116.76%
4 Bering	13,705	87,196	\$1,128,169	\$1,298,576	\$13,109,548	110.99%
5 Cape Smythe	17,605	41,603	\$1,832,898	\$1,515,987	\$12,962,612	113.24%
6 ERA (Bush)	2,316	102,333	\$917,859	\$2,655,782	\$12,566,963	126.80%
7 Frontier	17,913	100,945	\$3,181,014	\$1,657,158	\$18,117,006	110.07%
8 Grant	22,413	74,749	\$1,572,142	\$2,188,603	\$15,230,389	116.78%
9 Hageland	29,405	149,810	\$2,340,477	\$1,257,327	\$21,340,044	106.26%
10 Iliamna	4,002	14,628	\$173,244	\$122,663	\$1,746,300	107.55%
11 Inland	8,409	10,868	\$324,339	\$233,721	\$2,557,658	110.06%
12 Island Air	2,337	24,819	\$420,629	\$457,128	\$2,371,932	123.87%
13 Larry's	16,268	10,293	\$736,624	\$308,900	\$3,873,684	108.67%
14 Peninsula	28,173	170,048	\$7,046,272	\$6,218,676	\$44,485,104	116.25%
15 Promech 3/	4,550	73,850	\$1,603,707	\$394,517	\$6,508,431	106.45%
16 Servant	8,753	745	\$292,747	\$326,093	\$1,519,469	127.33%
17 Skagway	829	14,173	\$362,984	\$106,371	\$1,204,969	109.68%
18 Smokey Bay	1,624	20,587	\$22,451	\$501,893	\$1,119,334	181.29%
19 Spemak	90	18,527	\$132,445	\$258,641	\$1,265,031	125.70%
20 Tanana	21,263	8,108	\$438,226	\$637,264	\$3,702,140	120.79%
21 Taquan 3/	3,699	12,658	\$207,578	\$96,516	\$2,445,082	104.11%
22 Warbelows	6,405	39,891	\$523,803	\$593,625	\$6,526,638	110.01%
23 Wings	4,732	40,482	\$938,313	\$419,806	\$3,971,742	111.82%
24 Wright	4,392	33,244	\$398,137	\$682,786	\$5,695,659	113.62%
25 Yute	16,539	2,197	\$1,073,741	\$1,190,730	\$5,427,727	128.10%
	264,072	1,080,589	\$27,245,262	\$24,086,731	\$198,758,863	113.79%

1/ In order to put passengers, freight, and mail on the same basis, they are converted to passenger equivalents,

where 1 passenger, and 200 pounds of mail or freight, is one passenger equivalent.

2/ We applied a factor 26.48304 percent, based on ERA's Scheduled Twin Otter RTMs, as shown below, to ERA's system expenses and T-100 market data to determine the bush portion of its operation.

Segment Data		430		483		485-Otter		Total
Aircraft Type		160		483		485-Otter		
Skd. Pax. RTM		7,338	879,275	2,355,792	1,125,888	1,125,888	4,368,293	
Skd. Mail RTM		28	12,649	44,839	68,429	68,429	125,945	
Skd. Freight RTM		95	20,244	67,516	26,063	26,063	113,918	
		7,461	912,168	2,468,147	1,220,380	1,220,380	4,608,156	
							26.48304%	

Source: Appendix A, page 3.

Carrier	Scheduled Service, T-100 Market				Nonscheduled Service, T-100 Market				Per Schedule F-2				CR
	Passengers	Freight Lbs.	Mail Lbs.		Passengers	Freight Lbs.	Mail Lbs.		DR	CR	Directs	Indirects	Operating
1 40-Mile Air 2/	673	52,854	56,912		0	0	0		\$37,635	\$97,299	\$756,053	\$242,311	\$998,364
2 Alaska Seaplane 3/	2,659	110,044	173,918		1,677	11,694	0		\$156,025	\$64,636	\$621,088	\$278,710	\$899,798
3 Arctic Circle	805	2,598,712	4,340,712		1,696	1,174,852	0		\$1,278,102	\$714,974	\$6,793,126	\$2,033,885	\$8,827,011
4 ATS 4/	0	5,815,432	4,832,096		0	658,516	5,352		\$2,273,297	\$776,476	\$4,199,486	\$3,091,878	\$7,291,364
5 Baker	1,438	38,190	1,215,829		828	12,752	68		\$143,336	\$184,358	\$808,534	\$476,058	\$1,284,592
6 Bellair 4/	0	712,032	1,932,723		0	0	0		\$376,947	\$568,452	\$2,028,954	\$945,399	\$2,974,353
7 Bering	63,799	1,528,990	2,741,007		10,864	977,679	0		\$1,128,169	\$1,298,576	\$9,477,485	\$3,632,063	\$13,109,548
8 Camai/Village 4/	0	1,054,409	2,680,618		0	222,147	0		\$725,293	\$980,502	\$2,531,410	\$1,705,795	\$4,237,205
9 Cape Smythe	34,561	1,408,401	3,520,938		0	0	0		\$1,832,898	\$1,515,987	\$8,544,707	\$4,417,905	\$12,962,612
10 ERA (System)	356,506	1,605,252	1,749,359		21,876	0	0		\$3,465,836	\$10,028,234	\$26,407,015	\$21,045,848	\$47,452,863
11 Frontier	89,683	970,922	3,582,575		6,397	2,128	0		\$3,181,014	\$1,657,158	\$12,596,267	\$5,520,739	\$18,117,006
12 Grant	70,454	176,531	4,482,666		3,412	0	0		\$1,572,142	\$2,188,603	\$8,869,075	\$6,361,314	\$15,230,389
13 Hageland	105,679	1,758,324	5,880,962		31,361	795,708	0		\$2,340,477	\$1,257,327	\$16,425,580	\$4,914,464	\$21,340,044
14 Iliamna	7,641	36,492	800,319		6,609	37,805	1,358		\$173,244	\$122,663	\$1,338,876	\$407,424	\$1,746,300
15 Inland	4,847	91,931	1,681,879		5,449	22,445	0		\$324,339	\$233,721	\$1,857,730	\$699,928	\$2,557,658
16 Island Air	17,097	507,935	467,376		4,481	127,415	12,935		\$420,629	\$457,128	\$1,334,052	\$1,037,880	\$2,371,932
17 LAB 2/	17,468	656,949	878,084		108	55	0		\$185,691	\$433,708	\$1,512,917	\$1,328,101	\$2,841,018
18 Larry's	7,620	139,363	3,253,626		1,945	6,327	0		\$736,624	\$308,900	\$2,724,937	\$1,148,747	\$3,873,684
19 Olson 4/	0	32,843	1,003,607		0	0	0		\$562,366	\$116,153	\$710,728	\$678,519	\$1,389,247
20 Peninsula	149,483	2,072,567	5,634,579		9,687	102,376	751		\$7,046,272	\$6,218,676	\$25,548,757	\$18,936,347	\$44,485,104
21 Promech 3/	30,293	533,788	909,907		39,759	224,528	1,350		\$1,603,707	\$394,517	\$3,991,727	\$2,516,704	\$6,508,431
22 Servant	529	43,235	1,750,619		0	0	0		\$292,747	\$326,093	\$888,306	\$631,163	\$1,519,469
23 Skagway	9,784	179,233	165,738		3,408	16,922	0		\$362,984	\$106,371	\$712,538	\$492,431	\$1,204,969
24 Smokey Bay	17,991	200,545	324,759		1,585	1,629	0		\$22,451	\$501,893	\$564,216	\$555,118	\$1,119,334
25 Spennak	104	33,466	17,942		14,559	739,316	0		\$132,445	\$258,641	\$834,782	\$430,249	\$1,265,031
26 Tanana	4,637	279,893	4,252,511		1,689	76,440	0		\$438,226	\$637,264	\$2,484,426	\$1,217,714	\$3,702,140
27 Taquan 3/	1,068	12,929	739,736		11,398	24,496	936		\$207,578	\$96,516	\$1,843,374	\$601,708	\$2,445,082
28 Warbelows	35,560	666,198	1,280,938		988	1,696	704		\$523,803	\$593,625	\$4,922,068	\$1,604,570	\$6,526,638
29 Wings	30,777	552,592	946,497		6,914	1,961	3,547		\$938,313	\$419,806	\$2,348,837	\$1,622,905	\$3,971,742
30 Wright	18,280	617,421	878,347		7,187	937,966	0		\$398,137	\$682,786	\$4,422,451	\$1,273,208	\$5,695,659
31 Yute	1,647	110,008	3,307,766		0	0	0		\$1,073,741	\$1,190,730	\$3,085,111	\$2,342,616	\$5,427,727
	1,081,083	24,597,481	65,484,545		193,877	6,176,853	27,001		\$33,954,468	\$34,431,773	\$161,184,613	\$92,191,701	\$253,376,314

1/1 + CR/(Operating Expense less CR)

2/ Data excluded from regression as unreliable.

3/ All operations by this carrier were with amphibious aircraft

4/ All-cargo operator